DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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RAYNOLDS & NOURSE, *Proprietors.* OFFICE, QUINCY HALL, BOSTON. S. W. COLE, *Editor.*

PLANTING SMALL POTATOES.

In some parts of the country potatoes are so scarce that farmers find it difficult to get enough to plant. In such cases it is best to plant small ones, for if they do not not yield as good a crop as large ones, there will be but little difference for one year. Owing to the rust last season, which did more damagethan the rot, in this section, potatoes were very small and poor; yet these poor potatoes will probably yield good crops.

If a person has to buy potatoes to plant, it will not, generally, cost him more than one-fourth or one-third as much for small potatoes as for large ones to plant the same extent of land. The small potatoes may be had at a much lower price per bushel, and a much less quantity will be required. Our remarks refer to raising a single crop.

It is yet doubtful whether the constant planting of small potatoes will cause a degeneracy in a course of years. In some cases small potatoes have, for one year, yielded as much as large ones; in other cases they have not.

GRASSES.

We believe that nearly all of our grasses are imported, or of foreign origin; if this be the case, or if it be not so, why should we confine ourselves to a few, very few varieties, while in other countries so many kinds are cultivated to advantage? In this country we have a great variety of climate, in every climate a great variety of soil, and our soils are not only various in their composition, but differ widely in their degree of moisture; some from their situation being extremely wet, while others are light and porous. And besides the advantages of producing almost every kind of grass to advantage, we have nearly all kinds of stock for their consumption.

Then we surely can cultivate, and with profit too, as great a variety of grasses as are now profitably cultivated in any country. In England forty-seven kinds of grasses are extensively cultivated, and each is found valuable by experiment for some kinds of soil or situation.

This doubtless includes several kinds used in lawns intended for ornament rather than food for stock; and some may succeed well in that country of mild winters that would not endure the rigid cold of the north, nor the hot, dry summers of the south. And even in the north our summers are generally hot, and frequently severe drought prevails. Those grasses that are but little known among us, but which succeed well in Europe and are among their principal kinds, and which have succeeded well here too in the small way in which they have been cultivated, should receive more extensive cultivation, that their advantages may be fairly tested, and the best kinds made known to the public.

Many intelligent farmers, after various experiments on grasses, conclude that herds grass, red top and clover are all that we can profitably cultivate. But we do hope that we shall not stop here, for we have indigenous grass, and there are foreign kinds that never have been subjected to thorough trial.

We would not advise large and expensive experiments, but trial of those grasses not well known should be made in a small way, and when the experiment is sufficiently promising to justify it, let the experiment be made on a large scale.

EARLY WEEDING.

There are many pieces of land, particularly in nurseries and gardens, that should be rid of the weeds and the soil stirred thoroughly as soon as it is dry enough to work. There is a double advantage in performing this operation early in the season. In destroying weeds the old adage, "A stitch in time saves nine," is literally correct.

The tender weed, the small bunch of sorrel, or tuft of grass, that can be removed with ease, as it first starts in spring, will soon extend its roots and crowd upon plants, requiring ten times the labor to

remove it when large. By removing the weeds and pulverizing the soil, the plants will grow with vigor, but if neglected they will make slow progress in a hard soil, especially when weeds are robbing them of their nutriment. Another advantage in loosening the soil; it will the more readily receive the rain, and become still more finely pulverized, and enriched, and contain a greater source of moisture, than when the earth is hard at the top, throwing off the water in streams which often do no small damage by washing.

HEDGES.

VEGETATION OF SEEDS.

A correspondent remarks that a friend of his bought seeds for hedge plants, (he does not say what kind,) and soaked them in hot water, and planted them according to direction, and they did not vegetate. These seeds might be kept dry through the winter, (else hot water would have been worse than useless,) of course they would not vegetate until the next spring.

Thorn, apple, pear and quince seeds, also most seeds of forest trees, and the seeds of stone fruit, such as cherries, plums, peaches, (excepting a few of the latter,) should be sowed in the fall, or put into moist earth, preparatory to sowing in the spring, and this general and well and long established principle ought to be well known to every cultivator in the country; yet we find people every year buying and sowing dry seeds in the spring. The perusal of a good agricultural journal and a little reflection would save much waste of time and money, and save also from bitter disappointment and vexation.

THE POTATO ROT.

Mr. Editor:—Allow me a short space in your paper for some remarks on a subject of deep interest to all classes of society in our own and other countries. Although many discoveries of the *cause* of the potato rot, and many *remedies* for the same, have been presented through the press to the public during the last three or four years, the high price of potatoes during the past winter and at this time, and the fact that the Legislature of Massachusetts within the last few weeks have offered a premium of $10,000 to any one in that State *for a remedy*, is pretty strong evidence that the true cause of the disease and the proper remedy are not among those discoveries. The *cause* is undoubtedly the same in all localities, north, south, east and west; and the remedy must be just as universal—otherwise it is *not* a remedy.

Now I undertake to say, and will hereafter *prove*, to the satisfaction of every farmer in the Union, if he will apply the test which I am about to propose, that the disease originates in the deficiency of certain ingredients in the *soil*. The fact that millions of bushels (notwithstanding the loss of one-third or more of the crop by the rot,) of as good potatoes are grown every year in the United States as were ever raised before the appearance of the disease, affords to my mind, without more positive proof, sufficient reason to disbelieve the statement recently made, that the plant dies like an animal, in consequence of "*the feebleness of old age.*" I shall not ask the Legislature of our State to give me $10,000 for my discovery. I shall be amply rewarded if, on a fair and sufficient trial, it will settle the question. I shall not be alone if it be proved that I am mistaken; and as my remedy will add to the fertility of the soil in proportion to the extent it may be applied, no one can lose anything by the trial of it.

I therefore assert, as my firm belief, that *charcoal, properly applied, will always, and everywhere, prevent the disease known as the "Potato Rot."*

In the next number of the *Telegraph* I will give directions in regard to the application of this remedy, so that, late as it is, many farmers can make a beginning this season. As I intend to prepare a treatise on this subject, to be ready for distribution after the harvesting of this year's crop, I will be greatly obliged to farmers and others who will try this test, to let me know the result as soon as convenient thereafter, so that I can give to the public as much information as possible respecting the utility of this remedy. In that work I shall review the "discoveries" heretofore made, and give the reasons why charcoal will prevent the disease, with all the useful information on the culture of the potato I can obtain. It may require two or three trials to ascertain the quantity necessary to suit different soils and localities; and if in some instances it should fail on the first trial, I hope the industrious farmer will not charge the fault upon the remedy and abandon it, but try it again the next year—for I am confident that if properly applied, it is *the* remedy so much needed.

Tracy E. Waller.

Rising-Sun, Philadelphia Co., Pa., March 31, 1851.

P. S. On account of the lateness of the season, I would suggest that farmers who may be induced to try the remedy I have proposed, prepare at once a compost for one-eighth of an acre (which will be sufficient for a trial this year,) as follows:

Pulverised charcoal, - - -	250 pounds.
Bone dust, or best guano, - -	25 "
Salt, - - - - - -	15 "
One large wagon load of wet and well-rotted born-yard manure.	

Mix well together and let it lay until time to plant, say two or three weeks.—*Germantown Telegraph.*

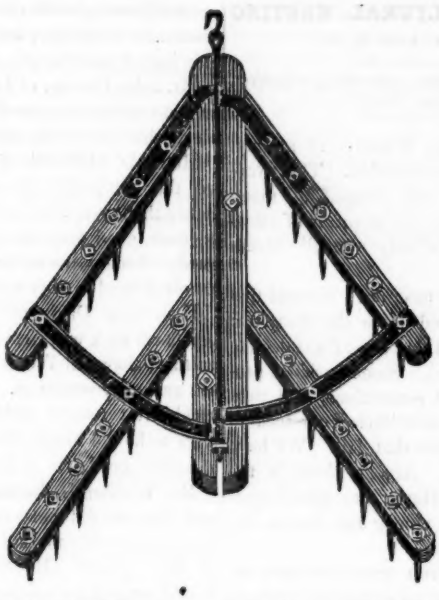
MULCHING GOOSEBERRIES.

The English gooseberry has always hitherto mildewed here: and I have been familiar with bushes of the best sorts for many years, without ever being able to gather any perfect fruit.

I have lately mulched some old bushes, which had hitherto borne this worthless fruit. I covered the surface of the ground under them a foot deep with wet, half-rotten straw, extending this mulching as the branches grew.

Imagine my delight at finding the gooseberries on the bushes so mulched, ripening off finely, the fruit twice as large as I have ever seen it before, and quite fair and free from mildew.—*Horticulturist.*

☞ Pleasure is sometimes only a change of pain. A man who has had the gout, thinks he feels first rate when he gets down to rheumatism again.



GEDDES FOLDING HARROW.

This harrow is very highly esteemed by many farmers who have used it. The two sides are joined by hinges in the centre, so that it adapts itself to an uneven surface, and operates equally upon all parts. By this arrangement one part can be elevated or thrown on the other in passing stones, stumps, fruit trees and other obstructions. And for deep harrowing, or on a tough hard place, it may be used in this way, giving double the usual weight to the part in operation. The teeth are made to fit a mortise tapering to the top, where they are fastened with nuts screwed down on an iron washer, which prevents their falling out, or working up as is the case with some teeth. This harrow is drawn from the centre, with a steady, regular motion, and either side may be conveniently elevated to free it from sods, stones, or other impediments, without disturbing the operations of the other part.

Sufficient attention is not paid to harrowing. It is the most important operation after ploughing. When the harrow is used sufficiently and properly, it causes a thorough pulverization of the soil, which is essential to the production of good crops, and which saves much expense in hoeing and weeding.

The price of these harrows varies from $8 to $14. They have from fourteen to thirty teeth.

THE WAY DOMESTIC ANIMALS COLLECT THEIR FOOD.—The horse, when feeding on natural herbage, grasps the blade with his lips, by which it is conducted between the incisors, or front teeth. These he employs for the double purpose of holding and detaching the grass, the latter action being assisted by a switch of the head. The ox uses the tongue to collect his food. That organ being so directed as to encircle a small bundle of grass, which is placed by it between the incisor teeth, and an elastic pad opposite to them in the upper jaw, between these the herbage is pressed and partly cut, its complete severance being affected by tearing. The sheep gathers his food in a similar manner as the horse, but is enabled to bring his cutting teeth much nearer to the roots of the plants, in consequence of the upper lip being partially cleft. For his upper lip is thin and susceptible of considerable mobility; while that of the ox is thick, hairless, with a very limited action.

REARING COLTS.

The raising of this kind of stock is rendered profitable where the right blood can be obtained. The colt requires but little attention after he is one week old. Until then, he is so feeble that it may be necessary to confine the mother to a limited pasture, as too much exercise for the first few days greatly injures him. Judicious farmers confine the colt in the stable if the mare is obliged to perform a large day's travel; but care should be taken, when the mare returns at night with a bag distended with milk, that the colt be kept from her until three fourths of the milk has been extracted by hand, for, by remaining in the bag so long (especially if the weather be warm,) it is rendered impure. When colts are five months old, they can safely be weaned, after which they will require fresh tender clover, and rowen. They need warm stabling for the first two years. If the breaking process is commenced carefully at two years old, it renders them the more valuable.

CHARCOAL IN CISTERNS.—A writer in the *Horticulturist* says, that six quarts of charcoal, nicely pulverised, and put into a cistern of the capacity of fifteen hogsheads, will make the water perfectly sweet at any time. Well worth the trial.

FIFTEENTH AGRICULTURAL MEETING

At the State House, April 22, 1851.

Hon. John C. Gray, of Boston, in the chair,—Subject, "Fruit and Fruit Trees."

At the last two meetings, it was very stormy, and only a very few persons attended. This evening, though it was bright and pleasant, the meeting was rather thin, showing the propriety of a final adjournment, when there is only a small attendance.

Mr. Gray addressed the meeting. He said that the question had been started as to the decay and decline of fruits. The fact that some fruits decline seems to be well established. Some varieties produce good fruit for several generations, and then they fail. We must raise new kinds from seed to take the place of the old ones that fail. We have some valuable seedlings. Among them is the Downer cherry; and Mr. Hovey has raised seedling strawberries that are among the first in the country.

Trenching the land for fruit trees has been recommended. But this is an expensive process. Subsoil ploughing though not quite equal to trenching, will answer a good purpose, and it is much cheaper. When the land is once loosened by subsoiling, it will not become consolidated again. The good effects last a long time. Our trees often suffer from drought. There are two remedies. One is the frequent stirring the soil; the other mulching.

Mr. Cole, of the New England Farmer, said that in cultivating fruit, there was one important point not sufficiently attended to; that is the selection of apples that will keep late in spring and into summer. The Baldwin Apple begins to fail in March, growing mealy at the core. The Roxbury Russet is uncertain, very liable to fail from unfavorable weather in spring, and the fruit is too dry for the dessert, and it does not cook well. We want good cooking apples late in spring and in summer till new apples are ripe. Dried apple is a poor substitute for green. He was not prepared to recommend the best late apples, but the Table Greening, Norfolk, Size, and Northern Spy were worthy of experiment, and a great many are trying the last. It is a fine apple, and if hard to raise, as some suppose, it may pay well for extra pains. [Mr. Cole showed fine specimens of the N. Spy, which were tried at the close of the meeting.] Very early apples should also receive more attention. Almost every man who raises fruit for himself or the market is setting Baldwin apples; and before a long time there will be ten times as many raised as at present. He thought it was a mistake as to there being a very great market in Europe for our apples, for a great part of the population find it difficult to get bread, and next to bread they will get meat if they can, before luxuries. As to the decline of fruit, he thought it was generally owing to the exhaustion of the soil; and indiscrimate manuring, without supplying the specific ingredients the tree needs.

Mr. John Perrim, of Lymeborough, N. H., presented some specimens of the John's Sweeting apples, which he recommended as a superior variety.

Hon. Mr. Hubbard, of Sunderland, recommended the cultivation of seedling peaches, as more hardy than those that are budded. If seed be planted from good fruit the product will generally be good. Some farmers have the finest of peach orchards formed in this way.

Hon. Isaac Davis, of Worcester, remarked that our finest fruit was from seedlings. At the horticultural shows in Worcester, the premium peaches are generally seedlings. He said that he obtained much fruit from a small space. He treated his trees as he did his children. He keeps them clean, and takes good care of them.

Mr. William J. Buckminster, of the Ploughman, said that we did not raise fruit enough. Grapes were sent to this market from New York and sold at high prices. He thought that early apples would not pay for raising, unless one was constantly attending the market. He considered winter apples more profitable. He recommended the cultivation of more sweet apples.

Hon. Dr. Gardner spoke of the importance of good culture, and attention to fruit trees, in order to succeed. He said that the Russet succeeded well with him, and he considered it a good apple. He thought there was no danger of raising too much fruit, as had been apprehended.

Mr. Cole explained that he would not speak against raising large quantities of fruit, but against all cultivators going very largely into one kind, as was now the case. He would have more late, and more early apples, that we might have a good supply through the year, and thus increase the amount of fruit, by supplying it in a season in which there is a deficiency.

Mr. Davis mentioned an instance of an excellent peach orchard, which lasted long and was very productive, that was covered with meadow hay. In some cases, the hay was opened and cabbages set, which flourished finely.

Adjournment without time.

Leaning of Trees.—Mr. Wm. G. Churchill, Deerfield, N. H., says that the article in the Farmer of April 5 does not express his views as to the leaning of trees. It should read thus: "He observes that a large part of the old trees in that vicinity lean in a north-eastern direction, which he attributes to the prevalence of south-westerly winds during the time of their growth."

Number of Grains in a Bushel of Wheat.—A writer in the *North British Agriculturist* states that the number of grains in a bushel of wheat weighing 62 lbs., is upwards of 639,000.

For the New England Farmer.

THE POTATO ROT.

At a time like the present, when disease has attacked the potato crop with such violence as to threaten its entire destruction, it should be the aim of every farmer to preserve a portion of that valuable crop, if he cannot find a remedy for the disease.

With a view of ascertaining, as nearly as practicable, what variety of potatoes is most hardy, I planted *twelve* varieties last spring, several of which were entirely healthy at harvest time, and remain so. I commenced digging about the 20th of 9th month. At that time potatoes were badly diseased in many parts of the country, and here it was thought that but few would be saved; but fortunately, the malady was soon checked, and farmers sustained but little loss from its ravages.

I planted several varieties on rich land, and manured them in the hills;—some with manure from the hog-pen, and some with horse manure.—Where the latter was used, but few infected potatoes were found; with the former, disease was much more prevalent. Some hills that had no manure in them were nearly free from rot. My Chenangoes on this piece were about *one-fourth* rotten, while some planted without manure, on light, new land, were nearly free from infection.—*Finger* potatoes yielded well, and about one-sixth were infected. *Kidney* potatoes I consider worthless to plant; they are excellent for the table when sound, but mine were nearly all rotten. I planted two varieties of red potatoes, which are new in this neighborhood. Not knowing the particular name, I will describe them. One is nearly a purple, and resembles the old white potato in shape. The other is colored like the Long Red, but is larger in circumference and not so long. Both varieties produced well, but the former was more diseased than the latter. These are fine table potatoes, and, if they continue healthy, will probably take the place of the Chenangoes and other varieties that are so liable to rot. The *Cow Horns* were healthy and produced well. One variety which I planted was produced from the seed a few years since. They are generally uncertain, but mine were sound last year.

The greater part of my potatoes were planted without manure, on new land containing a considerable portion of what we call *scurf*. On such land the potato disease has seldom done much damage. I planted the *long reds*, and the common white potatoes. But very few infected ones were found in either variety, though fewer among the *long reds* than among the whites. This strengthens the opinion I have a long time entertained,—that the red potatoes are more hardy than most other varieties, and, *in these times*, more profitable to plant for a main crop. The common white potato is an old and a hardy variety, but it is by no means free from rot.

I have now given the result of the past year's experience. I hope others will try experiments, and give *their* results to the public. This will enable us to come at correct conclusions.

L. Varney.

Sandwich, N. H., 2d Mo. 25, 1851.

Remarks.—The course pursued by friend Varney is a very good one, and one which has been too much neglected. On planting many varieties —which experiment may be made in a small way —we not only learn the very important fact, which is most hardy against the rot, but other important facts also, as we learn which are the earliest, the most productive, and of the best quality, when raised under the same circumstances.

For the New England Farmer.

TO PREVENT THE TASTE OF TURNIPS, &C., IN BUTTER.

Mr. Cole:—Mr. Weeks, of Vt., makes an inquiry in Nov. number, '50—for a cure of the taste communicated to butter and milk, who use turnips and other roots for their milch cows. When I have used roots and washed them, and sprinkled a little salt on them, I have found *no bad taste to the milk*. I was acquainted with a farmer who milked 20 cows, and knowing he used a great quantity of turnips; and I made a remark what good butter he had, and asked him how he managed to have it so good, using so many turnips. He replied, "My wife has a very simple receipt, which is this. When she churns she reserves a portion of buttermilk from the last churning, adds to the cream when she churns, and a small portion of saltpetre, about a pint to six cows; if this should not have the desired effect, add a little more."

If you think the foregoing receipt worth a place in your columns, it is at your service.

I remain yours, A Subscriber.

April 14th, 1851.

For the New England Farmer.

PRUNING FRUIT TREES.

Mr. Cole:—I seldom see a man in the act of trimming fruit or ornamental trees, or hear the axe resound from the orchard, but that the poetic expression, "Woodman, spare that tree," comes vividly to mind. Too often the attempt at pruning, or trimming, bears strong marks of mutilating. I know of no general, or in fact of any rule for improving trees in their appearance or condition. And I presume that many others are as much in the dark upon the subject as I am. Each one that practices, or attempts pruning, seems to me to be guided by his own taste or discretion, or by his ambition to equal or excel others in relieving trees of their limbs. All appear to be desirous of being considered in the height of fashion, or at least fashionable in this respect. The limbs of trees are undoubtedly as useful and necessary in the growth and support of the tree as the roots are. And a tree is no more likely to have a superabundance of the one, than the other. There will be no more unnatural growth of the one than the other. And it would seem that a limb would not grow, unless agreeably to the nature and condition of the tree. No branch or sprout puts forth, but must be in accordance with the necessity and wants of nature in the plant. It is not for man to say where limbs shall grow and where they shall not grow, unless he can discern the mystery of the vegetable growth and support. It cannot be possible that the limbs of trees grow at random, and that it is a lottery whether any grow in the right spot, position or form. The leaves are said to perform the office of lungs, and the roots that of the stomach, in the veg-

etable economy. The leaves absorb oxygen from the atmosphere, and thus convert into the support and growth, the nourishment that the roots take into the circulation for the purpose. If the roots are in a soil where they can grow extensively, and to perfection, the trunk and top will grow extensively and to perfection. If they are in a rocky or unnatural soil, they will be stunted and deformed, and the top will correspond. Improve the soil and you will improve the tree. It is better to have a tree of many branches in a prosperous state, than to have two trees, each pruned to one-half the extent of top of the one natural an untrimmed. Each root corresponds to a portion of the top and helps to preserve the center of gravity of the tree, and when the branches are cut mostly from one side, the stability of the tree may be very much weakened thereby. One in an enriched or fertile soil, in its natural state, will be of longer duration, and from its natural vigor, preferable for fruit or ornament, to one tastefully trimmed or mutilated.

OSCAR.

For the New England Farmer.

MANAGE WELL YOUR TREES.

MR. EDITOR:—In a neighboring town there is a gentleman who has been so successful in raising fruit, that I cannot but think that an account of his *modus operandi* in the fruit-growing business will be interesting to your many readers, and also it may perhaps stimulate them to new efforts in the production of that to which so much attention is at present directed.

Mr. M——, of C——, has doubtless paid more attention to the cultivation of apples than any other man in this vicinity; and the result is that he has obtained more money as proceeds of his apples than many farmers have from all sources. But I would not have you infer that his whole attention is directed to the raising of apples, for this is so far from the fact that perhaps he is more employed in other matters pertaining to the farm than to the before-mentioned business.

This gentleman a few years since had a large orchard of young trees an inch or thereabouts in diameter; and it occurred to him that he might graft them, and thus be sure of the right kind of fruit. He did so; but as is too often the case, he did not leave them afterwards to take care of themselves, that is, to their own destruction; he not only pruned them, but he dug around them and put on manure. He has annually cut off all the sprouts necessary, and usually has hoed them; and by yearly increasing the size of the place hoed, he this year has a place hoed around each tree about twelve feet in diameter. He also often applies chip-manure, and occasionally bones, ashes or other fertilizing substances. The result of all this is, his orchard is most beautiful, consisting of thrifty trees, which in the autumn are laden with the richest fruit. This orchard bears every year; even in years of the greatest scarcity this orchard yields, if not its accustomed quantity, yet considerably.—In this region, the year 1849 was noted as being a year of great scarcity of apples; but notwithstanding very few were raised, yet Mr. M—— obtained for his apples a large sum over what he used in his family.

Now if this man is so abundantly rewarded for all his labor and anxiety, others may go and do likewise and obtain the like recompense; but so long as neglect is a predominant principle in the creed of our farmers, we may not with reason look for that prosperity which otherwise might be expected. There is no doubt but it would have been somewhat easier, after he had planted his orchard, to have "let it alone;" but he had that keen foresight which especially every farmer needs, and he put his plans into operation, with what results I have shown.

There seems to be an inconsistency in the actions of most farmers; for, while they acknowledge that money is the object desired,—they go in a wrong direction to obtain this, in the most economical manner. They work long and hard to raise grain for market; but if half the labor each year which is employed in producing grain, &c., for the market, should be expended in renovating and grafting old, and making new orchards, in a few years not only would the gain be doubled or quadrupled, but their land would not be exhausted so rapidly. Hence I would advise farmers, if they have not yet commenced, to forthwith enter into the business of raising fruit.

POMUM.

REMARKS.—Fruit growing is like every other branch throughout the whole routine of terraculture,—it requires good management in order to success. But as some farmers have succeeded well with their orchards, by setting the trees in a fertile soil fresh from the forest, and allowing the limbs to grow at random, they are not aware of the attention that trees require in old lands, that have become exhausted of some of their most essential elements.

For the New England Farmer.

FLOWING NECESSARY IN THE PROPAGATION OF THE CRANBERRY.

MR. COLE:—Within a few years considerable attention has been paid to the cultivation of the cranberry, but the question often arises, is wet or dry cultivation congenial to this excellent luxury? Owing to this diversity of opinion their proper management in some measure has probably been neglected. The veracity of this question is difficult to be attested, as the experience of different writers conflict one with another, but having been engaged in the propagation of this plant for a number of years, we give the reader what we have experienced on and from our "Old Meadow."

For many years we have paid no attention to the cranberry vines, consequently we mowed them off, but the vines continued to spread and they now nearly cover the whole meadow. Some dozen or fifteen years since, a square rod would have contained all the vines then on the meadow; but by what means they became generally seeded or disseminated, we know of no other reason than this. About twelve years ago a school-house was built near this meadow, and as a matter of course the scholars flowed it, that they might have a place for recreation; since that time the vines have continued to spread and increase in bearing. Six years ago, cranberries were so scarce on this meadow that they were not worth gathering; last year, twenty-five bushels were gathered, and many were left. We have written these facts in a plain manner, hoping by this means the more surely to attract the attention of the general reader, and thereby draw

out the opinion of others versed in the cultivation of this luxurious production. We think that the flowing of meadows from the time the cranberries are taken off, (or by the first of Nov.,) until the first of May, or until the frosty nights are over, is of great advantage in the management of the cranberry. MIDDLESEX.

Winchester, 1851.

REMARKS.—It is a well-established fact, we think, that flowing cranberry lands is beneficial. There may be exceptions, but they do not disprove this general rule; for this rule is according to nature. In numerous places, in Maine, we have noticed on the margin of ponds, where the land was flowed in winter, and from which the water receded in summer, yet remaining moist from its nearness to the pond, cranberries grow spontaneously; but they did not grow above high-water mark.

For the New England Farmer.

PEACH TREES.

MR. EDITOR:—It has been a general complaint in our vicinity, that peaches cannot be raised with success among us on account of the liability of the trees to disease and failure.

I have known of several cases where healthy trees have been transplanted into fertile soil and subjected to good cultivation, and yet after luxuriant growth they have suddenly failed, much to the disappointment of their owners. After close observation I have concluded that most of the failures among peach trees are occasioned by that insidious enemy of the peach-tree, the peach-borer.

On my premises are some 200 peach trees of from 2 to 8 years' growth; from among them four have been removed on account of the *yellows;* the others are in a healthy, flourishing condition; this has been preserved only by great care and exertion.

I have tried various remedies to prevent and destroy the insect, yet few of them are sure in their operation. The following is the most effectual remedy I have tried.

In April I remove the earth to the depth of 2 or 3 inches immediately around each tree, then with a sharp knife carefully examine the trees, laying open every cavity under the bark of the tree where the *borers* may have secreted themselves. This having been done, pour two or three quarts of boiling soapsuds around each tree, and the insects are destroyed while it injures not the tree in the least. Let the trees be examined again during the season, and in like manner each ensuing year, and little need be feared from the ravages of the peach-borer. Some of my most flourishing and productive trees are those which have been reclaimed in this manner.

Yours most respectfully,

PHS. M. AUGUR.

Middletown, Ct., April 21, 1851.

REMARKS.—There are many places where the peach-borer is not found. In other regions it is very destructive; the better way is to take some effectual means to exterminate them wholly, and then with little attention they may be destroyed, as a few make their appearance afterwards.

The yellows is a very destructive disease, and in all cases where it makes its appearance in a tree, or a tree has the appearance of being affected, it should be eradicated at once.

CLEANSING THE BARK OF FRUIT TREES.

This operation should he performed in early spring, as well as in mid-summer. The rough, loose parts of the bark should be scraped off, as well as moss and other parasites. The bark should then be covered with the following mixture, as high as the operator can reach, with an ordinary long handle whitewash brush:

5 pounds whale oil soap,
1 pound fine salt,
1 pound fine sand,
2 pounds potash,
2 ounces nitrate of soda,

dissolved or mixed with water to the consistency of cream, and thoroughly rubbed upon the bark.

Many kinds of insects are kept from trees by a solution of whale oil soap alone, and many such as are resident in the crevices of the bark, are destroyed by salt. The fine sand is intended during the rubbing to scratch the outer coating of the bark and thus assist the other ingredients for more perfect action. The potash and nitrate of soda will decompose or soften the dead parts of the bark, so that during the summer they will be thrown off by the healthy action of the growing bark. If the above mixture be applied in dry weather, it will become so hard as to remain during several showers, and thus have time to perform its office. Trees with smooth bark, such as the plum, many of the cherries, &c., should be rubbed with a wet rough woollen cloth in a few hours after applying the mixture; this rubbing will cause the sand to clean the surface so perfectly as to give the bark an improved and more healthy surface. Trees so cleansed are not as likely to be revisited by insects as those left with their natural surfaces, nor are they as likely to become bark-bound. Indeed we have never known a tree to exhibit the disease called bark-bound, the surface of the trunk of which had been softened by a soap wash in early spring. The cherry, apricot, peach and nectarine are subject, when left to their natural state, to this disease, and it has usually been attributed to too rich or too moist a soil; and under-draining and slitting the bark lengthwise with the knife are the usual remedies. The one is expensive and often impossible where choice trees are planted, and the other is barbarous and unsightly, causing exhalation of gum and consequent canker. In any case, a few applications of soap to the surface of the part hide-bound will remove the difficulty, and the mixture before recommended may be applied, slightly warmed, when required to soften the bark of a hide-bound tree.—*Prof. Mapes.*

ASHES AND PLASTER FOR MANURE.—J. Johnston, of Geneva, says that on his soil, which is a gravelly clay, one bushel of plaster will do more good to his clover than forty bushels of ashes—and that on muck soils he never perceived any benefit from plaster, though ashes may be useful. All the experiments we have tried on sandy and gravelly loam show the superiority of plaster to ashes, applied to grass lands. J. Johnston also says, that he has found the best way of applying stable ma-

nure in autumn is to spread it over the surface, and plough it in the next spring. This entirely accords with our own experience, whatever hypothetical reasoning may say to the contrary. It is perfectly evident, however, that little evaporation can take place during winter, while much that is soluble may become diffused through the soil.—*Ex.*

CHARCOAL AND WATER.

The following useful hints we abridge and copy from the Agricultural part of the Patent Office Report.

About one-half of the dry weight of all plants is *carbon* or *charcoal*. Of the other moiety, more than four-fifths are water, or, more correctly, the elements of water, called *oxygen* and *hydrogen*. Without the presence of moisture, both in the soil and the atmosphere above it, no plant can grow; and the presence of carbon, in a dissolved or gaseous form, is equally indispensable to the production of all vegetables.

It matters little whether carbon is accumulated in a solid form by imperfect combustion, as in the making charcoal from wood in a common coal-pit, or by the slow decay of plants (*eremacausis* of Liebig) in forming mould, muck and peat. The power of these carbonaceous and exceedingly porous bodies to condense the gaseous food of cultivated plants should be universally known.

Gaseous compounds of phosphorous obey the same general law. All well pulverized earths have a similar property of condensing oxygen and other gases; and thorough tillage greatly promotes the condensation of vapors and gases about the roots of plants, to nourish them. Charred peat, muck and wood are exceedingly valuable to mix with all manures to prevent the escape of fertilizing elements which are volatile and liable to rise into the atmosphere.

Charred muck, peat and wood are coming into extensive use in deodorizing night-soil, aided by gypsum and common salt. By these means a fertilizer of great power, and perfectly inodorous, may be formed, suitable to be planted or drilled with all seeds. Well dried and finely pulverized clay is a valuable deodorizer, and is used by many millions of people in China and some parts of Europe, to mix with night-soil. In this way it can be thoroughly dried and not part with any of its gases. Copperas-water and diluted oil of vitriol poured over night-soil convert all the volatile into involatile elements.

To command water in dry weather, and get rid of the excess in rainy seasons, *deep tillage* is equally valuable. In the former case, moisture *ascends* from the subsoil by capillary attraction; and in the latter, the excess of water in the surface soil *descends* into the subsoil to meet an exigency of an opposite character. The skilful control of water is the first lesson in good farming.

EFFECTS OF DEEP PLOUGHING.

Mr. Editor:—As you seem desirous to obtain the results of actual experiments in raising crops, I venture to give mine, in raising a crop of wheat upon a field containing 35 acres, which had been cropped without intermission for fifteen years previously, without the use of fertilizers, except some portion of the straw produced, during the time.—As might be expected, the sorrel had full possession of the soil. I procured a No. 3 subsoil plough, and two strong pair of oxen, to break up the fallow, letting the plough run from nine to twelve inches deep, which turned up about four inches of new soil.

This I thought was the stuff for producing wheat. I designed to use the cultivator during the summer in dry weather, to keep down the sorrel, should it make its appearance—but wheat harvest came on quite early, and after that was over with, the ground was too wet for some time; however, I resolved to try the cultivator on part of the field, (by way of experiment,) and cross-plough the rest.—The cultivator left the sorrel lying on the top of the ground, where the sun killed it completely in a day or two. On this portion of the field, at seeding time, the wheat was sown and covered with the cultivator—upon the remainder, the harrow was used for covering the seed; the quantity of seed was equal, being 1 1-2 bushels to the acre.—There was no perceptible difference in the wheat at harvest time, put in as before mentioned, excepting 10 acres upon one side of the field, which received thirty pounds of plaster to the acre, the spring previous; upon that portion there was decidedly the best wheat. The product of the field was 805 bushels, being an average of 23 bushels to the acre.

Adjoining this, was a field of like soil and condition, which was ploughed twice with a single team, at the same time as mine, which averaged only 12 bushels to the acre.

Yours, respectfully, Geo. W. Kennedy.
—*Michigan Farmer.*

BEDDING FOR STRAWBERRIES.

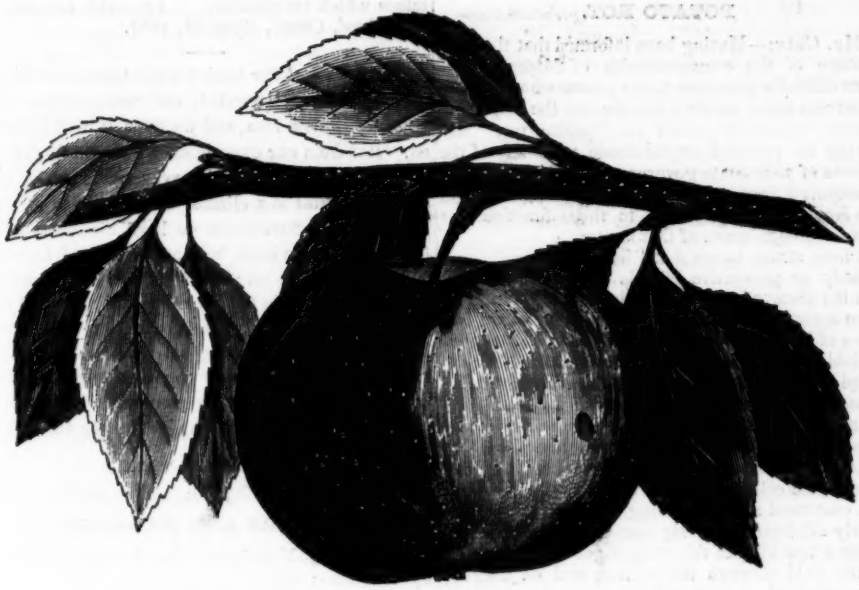
It is an excellent thing to cover the ground around your strawberry plants. It keeps the soil light, warm, and moist, keeps down the weeds, and keeps the fruit from being covered with sand. The *Prairie Farmer* says:

"The English use straw—hence the name *strawberry*. Of late, spent tan bark is much recommended; and where plenty, is no doubt a first rate article; we have seen it stated somewhere that it is apt to *flavor the fruit*. This would be fatal to it if true to any great extent. Saw dust—which, by the way, is a first rate manure—would be unexceptionable, and would be far better employed in mulching lands than in floating down creeks, or going off in smoke to the clouds. Let those who live near saw mills look out for the saw dust—it will pay for hauling."

Destructive Effects of the Tomato growing near Grape Vines.—Mr. Holmes described an instance of this kind in his own experience, where a healthy and exceedingly thrifty grape-vine, seven or eight year sold, was nearly ruined (poisoned) by the contact of a tomato vine which had been planted within six or eight inches of the grape.—*Minutes of the N. Y. Farmers' Club.*

Mr. Reuben Brackett, of Denmark, Iowa, exhibited to us last fall several specimens of grape vines which could not be made to thrive in the vicinity of peach trees.

The difference is very great indeed between those vines within reach of the roots of the peach trees, and those a few feet more distant—the soil and all other circumstances being equal.—*Eds. V. Far.*



GARDEN ROYAL APPLE.

This apple originated on the farm of Mr. Daniel Bowker, Sudbury, Mass. The tree is a rather slow or moderate grower, and a good bearer.—The fruit is of the highest quality for the desert, being remarkably tender and of a fine spicy flavor, resembling a good pear in its fine qualities. It is a very good looking, but not beautiful fruit. We consider the Garden Royal one of the very best apples of its season, for the garden, or for orchard culture for one's own use, and it sells well in the market; but some varieties of more rapid growth, and of larger and more beautiful fruit, though not of so high a quality, may be more profitable for the market.

The Garden Royal is small; roundish flat; of a dull greenish and russetty yellow ground, but mostly covered with dull, deep red in the sun, with numerous large light specks; stem short, slender, in a medial sized cavity; calyx medial, open, in a broad, shallow basin; flesh very fine, tender, almost melting, crisp, juicy, and of a delicious, highly aromatic flavor. In use during September.

REMARKS ON BREEDING.

As an illustration of the effects of *in-and-in* breeding, the following is related as having occurred in a particular neighborhood in this country. A farmer of a sour, unsocial disposition, who as much as possible avoided all intercourse with the rest of the world, and shunned asking the slightest favor of a neighbor, lest he might at some time be desired to reciprocate the kindness shown him, for a long series of years bred his cattle entirely from his own stock. In consequence of this course, such a herd of misshapen, ungainly, big-headed quadrupeds were produced that they could scarcely be recognized as belonging to the cattle kind; and "——'s wolverines" were for a long time the butt of ridicule in the whole vicinity.

The careful breeder, upon either system, will avoid using, even for a single season, any animal possessing obvious defects; for such defects, once introduced in but the slightest degree, are liable to be transmitted and re-appear even after several generations have passed. To the many curious and valuable facts already on record relating to this subject, the following may be added:—A portion of the fowls possessed by Constant Clapp, Esq., were formerly of the "downy" breed. But this variety, so strongly marked, had run out and entirely disappeared from his premises for eight years, when three of these downy individuals, perfect in every particular, reappeared among his flock, showing that the blood, though apparently obliterated, had yet been lurking there, generation after generation.

It was a favorite theory with the late distinguished General Schuyler, a man of extensive observation, of deep penetration, and sound judgment, that the true character, either of a man or beast, could be ascertained by looking at the parentage from which he had descended; and as an illustration of this, he used humorously to relate the incident, that in the early years of the Dutch trade with the East Indies, one of his ancestors, being a sea captain, had gone thither, and returned with a wife—a Mongolian lady, whom he had married in his absence. And the blood of that cross continued still to cling to the descendants two centuries afterwards, despite of all their efforts to eradicate it—so that down to the present day, in one branch and another of the family, one of these confounded East Indians would occasionally be making his appearance!—*Trans. N. York Ag. Society.*

For the New England Farmer.

POTATO ROT.

MR. COLE:—Having been informed that the legislature of the commonwealth of Massachusetts have offered a premium to the person who shall discover and make public a remedy for the vegetable disease commonly called the "potato rot," and having no personal acquaintance with any of the officers of your State government, I beg permission to submit a brief statement, through the columns of the New England Farmer, to those functionaries that have cognizance of this matter.

I have strong hopes that I have discovered a sure remedy or preventive of this formidable disease, and the discovery was made by a mere accident. I am a very small farmer, improving less than two acres of land, but for the last fifteen years have invariably cultivated a small "potato patch" for the supply of my own family with this almost indispensable esculent.

In the fall of 1849, on harvesting my little crop of potatoes, I found them somewhat diseased, but not to any very serious extent. After they had been in the cellar some weeks they began to rot, and continued so to do during winter, till they were nearly all destroyed. By some mistake or negligence a few hills of this crop of potatoes were left in the field through the winter, and on digging them out in the spring, a large proportion of them were found to be sound and free from any disease, and I have good reasons for believing that among those left out, not a potato was attacked with disease after the frost penetrated the ground so as to reach it. These potatoes thus renovated by that most powerful disinfecting agent, *frost*, were again planted, and produced the only sound potatoes which I raised last season; the remainder of my crop, about thirty bushels, all rotted during the fall and winter.

I am not qualified to "discourse learnedly" on the foregoing facts, yet they appear to me as having an important bearing on the subject which has attracted the attention of the Massachusetts legislature.

The potato is indigenous to this country, and grows in its greatest perfection in the northern and middle latitudes of the temperate zone, and nature points to the frozen ground as the place of rest for the bulb during winter. The "potato rot" appears to be a malignant, putrid and contagious disease, attacking a species of the vegetable kingdom as putrid fevers, cholera, &c., do the human species; and if severe frost is the great disinfecting agent and specific in the latter case, may it not stand in the same relation to the former?

The potato, like a pampered child, has been "killed with kindness," or possibly like the chronic epicurean, it may be diseased by over repletion; but whatever may be the cause of its decay, it would seem that it can only be restored to its primeval health by a return to the stern and chilling regimen pointed out by nature's unerring index. To reduce the foregoing theory to practice is very simple. Let the crop of potatoes remain in the ground through the winter, and dig them after the frost is entirely out of the ground in the spring; those which survive will be renovated and probably exempt from future disease.

To plant in the fall without any manure in the hill, might perhaps answer for an early crop, if the disease has not made too great progress in the potatoes which are planted. LEONARD LOOMIS.

Tolland, Conn., April 29, 1851.

REMARKS.—After having a great many old things on the potato rot repeated, our correspondent has presented a new idea, and we hope it will be tested. But from our experience we should think that potatoes not dug would be very liable to be destroyed by frost in a climate as variable as it is in this section. Sometimes we have a snow late in fall or early in winter, before the ground freezes, and the snow lies on all winter, and the ground is not frozen. Again the ground is bare most of the winter, and changes from severe frost to comparative heat and the reverse are great and sudden, and in such cases the potatoes at the usual depth would be frozen and thawed frequently. Yet we are pleased to offer this new suggestion for consideration.

For the New England Farmer.

FARMERS AND FARMING.

MR. COLE:—Notwithstanding farming is looked upon by many as not so honorable a business as some other kinds, in my opinion there is no business or occupation more honorable and independent than tilling the soil. The man who owns a farm, and has a clear title to the same, is the most independent of "Nature's noblemen." There is no occupation in the known world about which so many good things may justly be said in its favor. It may not bring so many dollars directly into one's pocket, but like casting "bread upon the waters," after many days the husbandman will reap the rewards of his labors.

But suppose the farmer does not increase his stores like the manufacturer, or others pursuing different occupations; he is the partaker of his own toils. He earns the bread he eats by the sweat of his *own* brow, and can repose under the branches of his own vine and fig-tree. The great desire of mankind seems to be to get wealth—and while striving to do so, they can have no more than they wish to eat and drink, and even after they have amassed all they desire (if that ever happens,) nothing but a living can be had out of it,—and this the farmer, with his small means, is pretty sure always to have.

The farmer possesses many advantages over those of other occupations. The first of which is, he is generally blest with health and a vigorous constitution. Certain it is, that there is no healthier business carried on than tilling the earth. Another advantage the farmer has, he leads a serene, quiet and peaceful life; is not troubled in his mind about the fall and rise of stocks,—like the manufacturers, merchants, speculators, &c. To the lover of nature, there is nothing more pleasant and delightful than spending his time in the fields, cultivating the ground. In the spring of the year, there is no other place so musical as the fields and groves which skirt them. The very air is alive with the merry little songsters. From every shrub and hedge the tuneful warblers pour forth their enlivening notes to cheer and gladden the farmer in his labors. The every day scenes of a farmer's life are

enough to give him pleasure and satisfaction in pursuing his humble and praiseworthy occupation.

How natural it is for boys, and young men even, as soon as they think they are old enough to take care of themselves, to hie to the city, to obtain situations in stores or counting rooms, thinking by so doing they are raising themselves to distinction, in the minds of society. They think it is more honorable to be in situations where they can wear a little finer cloth, and show a softer and more delicate looking hand. One great cause of the sons of farmers leaving them may be attributed to farmers themselves. If they would give their sons privileges—give them a piece of land to cultivate for their own special benefit,—and furnish them with tools suited to their age and strength, they would then have some interest at stake.

Boys ought not to be turned off with old rusty tools—those that have been laid aside as unfit for service. You let every boy have his bright shovel and hoe—his light scythe—his handy fork and rake—his painted wheelbarrow and other necessary implements, and my word for it the little fellows will manifest as much pleasure in wending their way to the fields, as ever Benjamin Franklin did in going round the house with his whistle. They will take pride in working on the farm; and if encouraged in this way—if each can have his little patch of ground and necessary tools, how anxious they will be for the appearance of spring. They will long to be putting their seed into the ground. As soon as the lark peeps forth from her hiding place at early dawn, the little fellows will be out to watch the appearance of their corn, potatoes, &c. By giving boys such privileges, they will be likely to become interested in farming, and will be pretty sure to grow up farmers. It is highly essential that there should be those growing up who will be prepared to fill the places of those who must ere long resign the places *they* now occupy in the agricultural community.

A. Todd.

Smithfield, R. I.

Remarks.—It is a great mistake that men generally grow rich in other than farming business. Almost every farmer who is industrious and economical, acquires a competency, which is all he can enjoy, but in other professions property is very unequally divided. Frequently where one is rich, one hundred are poor. There is an ardent pursuit for gain, but there are more than two blanks to a prize.

There is one great evil attending boys and young men who go into large mercantile places for employment, that is generally overlooked by parents. It is an evil that is constantly besetting them, and more than any other tends to their ruin. There is a great deal of deception in trade, and in cities a great many young men are trained to deceive. And if their employers teach them to deceive and cheat the customer, and they are pliant enough to bend to so base a purpose, is it strange that they should say in their hearts to their employers, "With whatsoever measure ye mete, it shall be measured to you again?" Here, in a great measure, arises the extravagance of clerks, who spend far more than their wages, and make up the deficiency from the drawer of the employer. Perhaps from the very same money that they have aided in taking unjustly from the customer. Those persons who are well acquainted with trade know full well the propriety of these remarks; and it is a subject that receives too little consideration, both from the parents and employers of clerks.

For the New England Farmer.

ON GROWING FOREST TREES.

Mr. Cole:—I noticed in the New England Farmer of Jan. 4th an article in relation to woodland, which I was much interested in; and I would, with your permission, make a few inquiries. I wish to know what method you would take to make old land produce a crop of wood,—by ploughing and sowing seed, or by transplanting. I have an old ledgy pasture on which I should be glad to grow a crop of wood, but do not know how to start it. I think it is well adapted to oak, ask, chesnut or maple.

If you will have the goodness to give the desired information through the medium of your valuable publication, you will confer a great favor on one at least of your interested readers.

Very respectfully yours,

Claremont, 1851. Charles N. Goss.

Remarks.—In starting to raise forest trees in the spring, it is better to transplant trees, unless seed is already prepared for sowing. As to the better mode, when one is prepared to attend to either, no conclusion that is reliable can be made, excepting by one at the place of operations, where he can judge of the expense of procuring seed and preparing the land for its reception; also of the advantage of obtaining good forest trees to set out, and the expense of setting. Either mode, with good management, will be attended with success.

For the New England Farmer.

WINTER WHEAT IN MAINE.

Mr. Cole:—A large quantity of winter wheat was sown in Maine last fall, and as the snow has left, it presents quite a favorable appearance, or at least what was sown on suitable ground and in proper season. The winter has been quite favorable; the snow coming on early and continuing late, has protected it finely from the thawings and freezings which not unfrequently occur. Should the season prove favorable on account of the wevil and rust, Maine will raise a much larger amount of wheat than has been, of latter years.

Yet that some may find themselves under a mistake in regard to the large crop they anticipate, is to me quite probable. Some individuals have taken hold of it rather strong, putting in from ten to fifteen acres, with the ground but poorly prepared, and some of it sown quite late in the fall, which now presents rather a meagre appearance.

I think we shall find, (in Maine, at least,) that it will be best to sow no more than we are able to prepare the land suitably for, giving it as much dressing as needful, and sowing it early in the season, ploughing in or putting in pretty deep with the cultivator, that the roots may not be easily thrown out by the late frosts of spring.

Vassalboro', 4th Mo., 1851. D. Tabor.

RULES OF HEALTH.

Various and almost innumerable systems of regimen and dietetics have been devised to keep the body in order; and manifold are the causes alleged as originating disease. A very simple medical philosophy was that of the celebrated and able, but eccentric Dr. Abernethy, who maintained that all diseases are originally produced by one of two causes—FRETTING and STUFFING!

This is not very choice phraseology we are aware; but Dr. A. was not remarkable for refinement. He was singularly rude and uncouth in his manners, and felt a sovereign contempt for effeminacy, which he was so far from attempting to conceal, that he delighted to parade and to exaggerate it. On one occasion he was visited by a North County Squire, from whom he extracted a circumstantial account of his daily round of feeding, betraying the unsuspecting man, by an ill assumed blandness, into admissions of all his gastronomic and Bacchanalian enormities. When the cross-examination was finished, and the patient looked for a prescription, he was astonished by a most furious denunciation. Dr. Abernethy told him he was, by his own confession, a glutton and a drunkard, and ordered him to go home and live like a rational being; and not expect to repair by drugs the effect of inordinate indulgence.

The doctor was right. But next comes the question, what is inordinate indulgence? Tried by strict rules, we fear very few could escape, even those who consider themselves temperate. A coarse but practical method of illustration has been suggested, in the putting into a vessel, bit for bit, and piece for piece, and drop for drop, a duplicate of every thing that one eats and drinks in twenty-four hours. The medley would not only astonish, but disgust; and we are inclined to suspect that there are few of us who do not err in this way; even among those who are considered temperate, their sin is palpable, and their punishment evident.

Now for the *fretting*. Nothing is better understood, or more readily acknowledged, than that sorrow, care and uneasiness impair digestion. We cannot escape sorrow, or avoid disappointment. But we can be resigned or patient under either. And we must, in this working-day world, eat the bread of carefulness—else in the jostle of competition we should soon have no bread left to eat at all. Care, however, in a reasonable and proper degree, is not incompatible with cheerfulness; but reasonably directed, may be made to minister to it. Prudent forecaste saves the occurrence of harrassing anxiety, by preparing us for exigencies. Fretfulness usually finds a vent more in complaint against others, than in acknowledging our own short comings. Those who impair their digestion by mourning over their sins are far the fewer number.

Since, then, temperance and cheerfulness form the Panacea which, if it will not cure, will at least alleviate all diseases, we must set these in our list of remedies, and in our selection of preventives above all other. The first can only be followed in a life of reasonable activity and wholesome excitement, as otherwise we may be tempted to try anodynes and stimulants. And the last can only be enjoyed by the man with a large heart and open charity; for if we think ill of our kind, we cannot have cheerfulness. Suspicion and fretfulness go together. And finally, as the homilist would say, we can only be temperate and cheerful by putting a true value upon things and events, neither magnifying trifles which concern ourselves, or undervaluing things and interests which affect others.—*Arthur's Home Gazette.*

NEW METHOD OF PLANTING POTATOES.

MR. EDITOR:—The opinion has generally prevailed, that the potato cannot be successfully grown without the assistance of large applications of energetic and strong manure. My experience, however, with this crop, since the prevalence of the "rot," has induced me to adopt a different opinion. Finding that in every instance where green, unfermented manure was applied, and even where gypsum was used as a substitute both on old lands and on those recently broken up, the rot, or "murrain" as it is denominated in Europe, prevailed to a most fearful extent, I have, for the last two years, planted my crop on green sward, turned over early and deeply in the spring, without any other stimulus than that contained in the soil itself, and with complete success, so far as regards immunity from the rot. Plaster, or gypsum, I consider the very worst application that can be made, even in dry seasons. Indeed, I have never known an instance of its being applied, where the tubers were not most injuriously if not fatally affected. Why it is so is a point equally as obscure to my comprehension as the cause of the disease itself. It is true that a less yield results from this system of non-manuring, but then there is this important advantage attending it,—the product we do obtain IS SOUND. My method of planting, is as follows:—

Early in the spring I break up my sward land—choosing for this purpose such portions of my mowing lands as are not very rich, roll and harrow. I spare no pains to bring the surface to a fine and even *tilth*, as by so doing I in a measure obviate the necessity of manure. Having accomplished this important preliminary part of the performance, I next draw my furrows three and a half feet apart, and drop my tubers, which I select from the smallest or medium sized portions of the previous crop, as they produce earlier potatoes—placing them two feet apart in the rows, a closer stand having a tendency to induce a stagnation of air, and thereby induce disease. Before planting, I expose the seed for a week or so on the sunny side of a fence or out-building, covering them carefully at night to prevent their being frosted, and plant them whole. I cover with a "*coverer*." This is a very simple implement, and is made thus: Two pieces of plank, two inches thick, six wide and three and a half feet long, are attached at one end by an iron hinge so as to admit of the instrument being contracted or expanded at pleasure. At the narrow end, a portion of the wood is cut out, say from one-fourth of the distance forward, to the extremity, leaving just enough at the point to hold the hinge. The wide end is the forward part, and is kept expanded by a cross-bar to which the horse gear and handles are attached. This, when drawn longitudinally of the furrows, draws on the dirt, and the scarfed opening behind, leaves a ridge over the potatoes, of uniform width and depth. The inner sides of the main pieces ought to be protected by thin plates of iron, extending half an inch below the edges, and running the entire length. One of these "coverers" will save its cost in a single day. —*Germantown Telegraph.*

CONVERSION OF PEAT INTO MANURE.

As along the whole range of the *Atlantic States*, as well as upon the margin of those rivers, bays, creeks and estuaries which abound therein and find ultimate outlets in the ocean, there are to be found vast deposits of peat, and kindred vegetable bodies, the utilization of these substances as manure becomes an object of the very last importance, and the more so, as, from a long continued course of improved culture, most of the arable lands in those States have become greatly exhausted, and the ordinary sources of manure have failed, thus far, to arrest the course of deterioration to which they have been subjected.

Peat, as we know, is composed of vegetable matter, the accumulation of centuries, in certain locations, there deposited under circumstances which but slightly favor decomposition, and may be said to consist of decomposed, partially decomposed, and undecomposed vegetable matters, which may be very readily presumed to be somewhat varient in their constituent elements, and which, according as they may have been more or less excluded from the influence of atmospheric air, by superincumbent water, to have undergone a greater or less degree of decay. But as peat once possessed life, its power of reproducing life in living bodies can, by the application of proper agents, be restored, and restored so effectually too, as to make every pound of it equally good for the fertilization of the soil as would be an equal weight of barn-yard or stable manure. The means by which this desirable end can be brought about is the object of the writer of this essay, whose purpose shall be to state them in so plain and practical a way, as to place the *modus operandi* within the comprehension of all.

Peat, operated upon by local circumstances, may vary, to some extent, in composition, but the difference is too trifling to effect its value as manure, as will be made manifest by the following facts.

The mean of 20 analyses of the peats of Rhode Island, by Dr. Jackson, gave the following results:

Water from - - -	10 to 25 per cent.
Ashes, when burned, - -	24.07
Vegetable matter, - - -	72.39
Silica, - - - - -	4.31
Iron and Alumia, - - -	1.34
Lime, - - - - - -	1.32
Magnesia, - - - - -	.32

The average of 10 analyses of Massachusetts peat, agreeably to Dana, was as follows:

Soluble Geine, - - -	29.41
Insoluble Geine, - - -	55.03
Salts and Silicates, - -	15.55

This average comprises various kinds of peat, as the kind usually used as fuel, turf and swamp muck, so that it takes within its range the ordinary kinds of substances available to farmers, in different situations, and, therefore, presents a fairer view of the real value of such substances than it would be, had the analyses been confined to fuel-peat proper, as the two latter bodies are more frequently to be met with in most localities than the former.

A more recent analysis made by peat found on the estate of the Hon. James A. Hamilton, of Nevis, near Dobbs' Ferry, in your State, gave the following results.

100 parts of the dried muck contained as follows:

Soluble and insoluble Geine, -	81.03 parts.
Silica, - - - - -	12.46
Alumnia, - - - - -	4.80
Oxide of iron. - - -	1.11
Lime and Magnesia, - -	.60
	100.00

The average of the preceding 31 analyses give us above 79 per cent. of vegetable matters in various stages of oxidation, the greater part of which is in an insoluble condition.—*American Artizan.*

INSECTS ON TREES.

A subscriber of Clarksboro', N. J., is informed that the common bark louse is easily and effectually destroyed by washing the trees with a solution of potash and water, or ley of ashes.

The leaf insect to which he alludes is only more difficult to destroy, on account of its position under the curled leaves. A suds of whale oil soap and water, or tobacco boiled in water, will soon end their destructive career. It should be applied with a syringe or brush, so as to reach all the insects. It may be necessary to repeat the operation, especially after rainy weather. These insects are not mentioned in any fruit books to my knowledge. The Wooly Aphis is the most destructive insect to the apple tree yet known. There appears to be two kinds. The native are more harmless. The foreign kind are more destructive, and are seldom seen in this country, except on imported trees. It is a small white downy insect, lodged in the crevices and crotches of the tree. Sulphuric acid of the shops, three-quarters of an ounce diluted with seven and a half ounces of water, will destroy them. Be careful of your skin and clothing in using the acid.

"A Subscriber" is mistaken in supposing that the leaf insects are the young of the ant. If he will take the trouble to visit the ant's nest, he will discover that they are enveloped in a tough case of the size of the full grown ant, and are perfectly developed when they first come to light, by bursting their prison-house doors. Why they are attracted to these lice I cannot tell, unless it is to obtain their eggs for food, which I think very probable.—*Dollar Newspaper.*

Mechanics' Department, Arts, &c.

IMPROVEMENT IN THE MANUFACTURE OF STARCH.

The *London Patent Journal* discusses an improvement in the manufacture of fine starch which has recently been patented by Mr. James Coleman, of Stoke, Norfolk county, England. The process is described in the Journal as follows:—

Take one ton of rice, either whole or broken, with or without the husks, and submit it to the action of caustic alkaline ley, in the manner at present performed, using soda in preference to potash, as affording a less deliquescent product. Wash the rice so prepared, and then pass it through the grinding or levigating mills in the usual manner, so as to reduce the starch matter to a pulp, in a fine state of division. The washed pulp so obtained is next to be placed in a churn, together with 40 gallons of a solution prepared in the following manner:—Take 20 lbs. of borax, and dissolve it in such a quantity of hot or cold water as will suffice to form a cold saturated solution; for

which purpose about 20 parts of water are requisite for 1 part of borax; pour 40 gallons of clear solution of borax thus made on a bushel of unslacked lime, placed in any suitable vessel; stir the mixture, and add to it enough of water to make up the quantity used to 50 gallons. Allow the undissolved portions in the mixture to precipitate, draw off the clear superlatent solution, and place it in the churn with the starch pulp, prepared in the manner before mentioned. The contents of the churn are next to be subjected to agitation for two or three hours, so as to bring each particle of the starchy matter in communication with the alkaline solution. When the desired effect has been produced, the mixture is to run from the churn into the separating vessel, and about as much water as the churn will hold added to it, (dimensions and capacity of churn not given,) the whole is to be now well stirred, and the starch washed, boxed and dried, in the usual way. Instead of borax and lime, as above mentioned, the same quantity of solution of borax alone may be used, or a solution of bitartrate of potash and lime, or a solution of bitartrate of potash alone may be employed. In either case, the process is to be conducted as above described. In the case of any other farinaceous or liguminious substance than rice being employed, the material used must be reduced to a fine pulpy state, as in the case of rice, proceeding as above directed.—*Farmer and Mechanic.*

WHITEWASHING.

As the time is now at hand for whitewashing on a large scale, we will give a receipt which is the best known for out-houses. Take half a bushel of good unslacked lime, slack it with boiling water and keep it covered during the slacking process. Strain the liquid through a seive, and add a peck of clean salt dissolved in warm water, add three pounds of boiled rice or wheat paste and half a pound of dissolved glue. Add five gallons of water to this mixture, and it is best to put it on hot, but in that case use only old brushes, or make allowance for the spoiling of them.

It has been found that our dry winds bite off, as it were, more of the whitewash than do rains. The salt is to obviate this evil. For whitewashing the interior of dwellings, do not use any salt, as it absorbs moisture; and to the above lime, add about two pounds of Spanish whiting. It makes the white more *clear* looking if a little indigo is squeezed through a cloth amongst it. Amongst the lime, Spanish brown or ochre may be stirred to make a colored lime paint. The sulphate of iron (copperas) makes a buff color; the sulphate of copper, (blue vitrol) a blueish color.—*Scientific American.*

THE ELECTRIC PIANO.—Mr. Davenport, of Salisbury, Vermont, we learn, claims to have made an improvement in pianos, causing the musical chord, by means of electric magnets, to continue an equable and free vibration for any length of time. The perpetual and hitherto incurable defect of the piano forte is the impulsive and evanescent nature of its tone, and though great improvements have been made upon it, and various devices have been elaborated to prolong its notes in some degree, yet the want of a sustained vibration is still an inherent defect in that beautiful instrument.—*Scientific American.*

Ladies' Department.

OUT OF DOOR OCCUPATION

COMPATIBLE WITH INTELLECTUAL REFINEMENT AND CULTIVATION.

The opinion is too common among females in this country, that intellectual refinement and cultivation are not consistent with any considerable degree of attention to out of door matters; and for a lady to manifest any special interest in, or acquaintance with the affairs of the farm, the barn-yard and the stable, is thought by many to be very unbecoming if not really vulgar. But surely it is as appropriate and decorous to study the works and the wisdom of God in the grain fields and among domestic animals, as among the birds and flowers; and no more vulgar to become useful or capable of being so, in these departments, than in the kitchen and garden.

If our educated and accomplished young women would take a deeper interest in these things and spend more of their time amongst them, we should see less of sickly delicacy and more of healthful beauty than now, and if those whose tastes or situations lead them more or less to out of door occupations, would devote a portion of their time to study, and a portion to the cultivation of whatever tends to refine and ennoble them, all classes would be benefited. Many such there are both in our own and other countries, and may their number rapidly increase.

We find an instance of this, that pleases us much, in the March number of the HORTICULTURIST, by its editor, A. J. Downing, in one of his recent series of letters from England. The writer is speaking of a visit he enjoyed at the country house of a distinguished authoress, well known both in England and America; and after describing the scenery, grounds and dwellings, he adds:

"It would be difficult, perhaps, to have a better opportunity to judge of the life of the educated middle class of this country, than in such homes as this. And what impressions do such examples leave upon my mind, you will ask? I will tell you, (not without remembering how many fair young readers you have at home.) The young English woman is less conspicuously *accomplished* than our young women of the same position in America. There is, perhaps, a little less of that *je ne sais quoi*—that nameless grace which captivates at first sight—than with us, but a better and more solid education, more disciplined minds, and above all, more common sense. In the whole art of conversation, including all the topics of the day, with so much of politics as makes a woman really a companion for an intelligent man in his serious thoughts, in history, language, and practical knowledge of the duties of social and domestic life, the English women have, I imagine, few superiors. But what, perhaps, would strike one of our young women most, in English society, would be the thorough cultivation and refinement that exist here, along with the absence of all false delicacy. The fondness of English women, (even in the highest rank,) for out of doors life, horses, dogs, fine cattle, animals of all kinds, for their grounds, and in short, every thing that belongs to their homes—their real, unaffected knowledge of, and pleasure in these things, and the unreserved way in which they talk about them, would startle some of my young friends at home, who are educated in the fashionable board-

ing school of Madame ———, to consider all such things 'vulgar,' and 'unlady-like.' I accompanied the younger members of the family here this morning, in an exploration of the mysteries of the place. No sooner did we make our appearance out of doors, than we were saluted by dogs of all degrees, and each had the honor of an interview and personal reception, which seemed to be productive of pleasure on both sides. Then some of the horses were brought out of the stable, and a parley took place between them and their fair mistresses; some favorite cows were to be petted and looked after, and their good points were descanted on with knowledge and discrimination; and there the *basse cour*, with its various population, all discussed and shown with such lively, unaffected interest, that I soon saw my fair companions were 'born to love pigs and chickens.' I have said nothing about the garden, because you know that it is especially the lady's province here.

"An English woman with no taste for gardening, would be as great a marvel as an angel without wings. And now, were these fresh looking girls, who have so thoroughly entered into these rustic enjoyments, mere country lasses and dairy maids? By no means. They will converse with you in three or four languages; are thoroughly well grounded in modern literature; sketch from nature with the ease of professional artists, and will sit down to the piano-forte and give you an old ballad, or the finest German or Italian music, as your taste may dictate. And yet many of my country-women of their age, whose education—wholly intended for the drawing-room—is far below what I have described, would have half fainted with terror, and half blushed with false delicacy, twenty times in the course of the morning, with the discussions of the farm-yard, meadow and stables, which properly belong to a wholesome country life, and are not in the slightest degree at variance with real delicacy and refinement. I very well know that there are many sensibly educated young women at home, who have the same breadth of cultivation, and the same variety of resources, that make the English women such truly agreeable companions; but alas, I also know that there are many whose beau ideal is bounded by a circle that contains the latest fashionable dance for the feet, the latest fashionable novel for the head, and the latest fashionable fancy work for the fingers.

"If I have unconsciously run into something like a sermon, it is from the feeling that among my own lovely country women is to be found the ground-work of the most perfectly attractive feminine character in the world. But of late, their education has been a little vitiated by the introduction of the flimsiest points of French social requirements—rather than the more solid and estimable qualities which belong to English domestic life. The best social development in America will, doubtless, finally result from an internal movement springing from the very bosom of our institutions; but before that can happen, a great many traits and refinements will necessarily be borrowed from the old world—and the larger interests, healthier home tastes, and more thorough education of English women, seem to me hardly rated so highly by us as they deserve. Go to Paris, if you will, to see the most perfect taste in dress, and the finest charm of merely external manners, but make the acquaintance of English women if you wish to get a high idea of feminine character, as it should be, to command your sincerest and most lasting admiration and respect."—*Ohio Cultivator.*

SCIENTIFIC MODE

OF ROASTING MEAT, AND OF PREPARING STEWS AND SOUP.

Cooking meat by boiling it slowly in a large quantity of water, which is afterward thrown away, is probably the most wasteful manner of preparing food that has ever yet been devised; and roasting it is a little better, as a great portion of nutritious juices must fly off during the process of its exposure before the fire; and yet how many families pique themselves on their economy, because they never have any thing but plain roast and boiled.

When meat is exposed to the fire, to undergo the operation of roasting, "the albumen of the juice of the flesh begins to coagulate at a temperature of 105.5 degrees, and it is completely coagulated at 140 degrees (Berzelius.") At this temperature, however, the coloring matter of the blood is not coagulated, and it requires a temperature of 150 or 158 degrees to make even the outer part of the meat appear what we call done. "In the interior of a large piece of meat," Liebig observes, "we can tell with certainty the temperature which has been attained in the different parts, by the colors which they present." In all those parts which appear underdone, the temperature has not reached 144 degrees. "In the cooking of poultry, the flesh of which is white, and contains little blood, the temperature of the whole need not exceed 130 or 140 degrees." The flesh of poultry or game is, therefore, much sooner cooked, and with a smaller fire, than an equal weight of beef or mutton.

By enveloping small birds with slices of fat bacon, "the extraction of the sapid constituents from the flesh by its juices, and the evaporation of the water, which causes hardening, are prevented; and the surface is kept in a tender state during the process of roasting."

In making soup, the opposite process to that required for boiling meat must be adopted. If the meat "be placed in cold water, and if this be brought gradually to the boiling point, there occurs, in the process, an interchange between the juices of the flesh and the external water." The soluble and sapid constituents of the flesh are dissolved in the water, and the water penetrates into the interior of the mass, which it extracts more or less completely. The flesh loses, while the soup gains, in sapid matters; and by the separation of albumen, which is commonly removed by skimming, as it rises to the surface of the water when coagulated, the surface of the meat more particularly loses its tenderness and shortness (as it is called,) becoming tough and hard. The thinner the piece of flesh, the more completely does it acquire the last mentioned qualities; and if in this state it be eaten without the soup, it not only loses much of its nutritive properties, but also of its digestibility, inasmuch as the juice of the flesh itself, the constituents of which are now found in the soup, are thus prevented from taking part in the digestive process in the stomach. The soup, in fact, contains two of the chief constituents of the gastric juice.

In making stews, the same process is observed, but the heating is stopped short before it reaches the boiling point.

☞ Brave actions are the substance of life, and good sayings the ornament of it.

ACKNOWLEDGMENTS.

Of Benjamin Meriam, Roxbury, some very early rhubarb, which we received last week on Friday. This is not only a very early variety, but it is remarkably tender. Mr. M. has not the name.

Of J. A. Kingsbury, Medfield, a bottle of wine, doubtless made from fruit, but as it was left in our absence, we have not learned the kind, nor is it recognizable in the liquor. We are informed that this wine is prepared without alcohol. It is pleasant, and would probably be useful, in some cases, as a medicine; and for such purpose should wines be made. Those that are whole need not a physician.

NOTICES OF PUBLICATIONS.

The Fruit Garden.—This is the name of a new treatise on fruits and fruit trees, by P. Barry, of the Mount Hope Nurseries, Rochester, N. Y.—The able manner in which Mr. Barry has conducted the Horticultural department of the Genesee Farmer has earned him a high reputation as a pomologist, and shows conclusively that he is well qualified for the production of a work of the character of this now before us. He has dwelt particularly on the laying out and managing of orchards and nurseries, training of trees, &c., &c. The work contains a large amount of valuable matter from a practical cultivator and accurate observer. Published by Charles Scribner, New York. Sold by Tappan & Whittemore, Boston.

Episodes of Insect Life.—This is a very beautiful work in its typography, binding and engravings; and the subject matter is very interesting indeed, showing the wonders of nature, and the philosophy and admirable design in many curious creatures around us, of which, too frequently, we are negligent or ignorant. As a source of amusement, and valuable instruction, we would recommend this interesting work; but it is not designed to give information in the science of entomology for the practical utility of those who cultivate the soil, and find that insects are among their most formidable enemies. B. B. Mussey, Boston; J. S. Redfield, New York.

Farmer's Guide.—No sixteen of this valuable work is received. It is the best foreign work on the general subject of agriculture; and it is adapted to the condition of American Agriculture by notes of Prof. Norton. Sold by Redding & Co., 8 State Street.

Pathfinder Railway Guide contains much valuable matter for the small sum of only *five cents* Snow & Wilder, 5 Washington Street.

The Water-Cure Journal.—The execution of this work is in a superior style, and the matter is highly valuable. Many a stubborn disease that will not yield to medicine, may be washed away by the simple means, every where abundant, of cold water, or it yields to the constant application of baths and wet bandages. By this agent, so common and simple that many will not try it, wonders have been performed. Fowler & Wells, 131 Nassau Street, New York.

American Phrenological Journal, published by the same, contains a large amount of valuable matter besides that strictly relating to the science to which it is principally devoted; and the articles on that subject are well worthy the candid examination of every individual.

Knowlson's Complete Farrier contains various receipts and directions for curing the diseases of horses. Published by T. B. Peterson, Philadelphia.

Knowlson's Complete Cow and Cattle Doctor, published also by Mr. Peterson, treats of diseases to which neat cattle are generally incident.

The Complete Kitchen and Fruit Gardener is another work published by Mr. Peterson, containing much valuable matter in a small space. Hotchkiss & Co., of this city, sell the last three works which we have noticed.

Fifth Annual Report of the Ohio State Board of Agriculture, for 1850.—We are indebted to our friend A. H. Ernst, of Cincinnati, for this work. It is much larger than the previous reports, consisting of 636 pages. We have not yet examined it.

☞ The New England Farmer is published *every other* Saturday by John Raynolds and Joel Nourse, at Quincy Hall, South Market Street, Boston.

Terms, $1,00 per annum in advance.

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